

ABSTRACT OF THE DISCLOSURE

Abrasive disk sheet articles having raised islands coated with spherical abrasive agglomerates that can provide both precision flat and smooth workpiece surfaces by high speed lapping are described. These disks also provide high material removal rates and low surface pick-out of soft metallic or non-metallic materials embedded in hard workpieces. A method of producing equal-sized spherical shaped composite abrasive agglomerate beads containing small diamond abrasive particles is described. These beads can be bonded directly on the flat surface of a flexible backing or bonded onto raised island surfaces.

Simple and inexpensive apparatus devices and process techniques are described that allow efficient low-volume batch or continuous web manufacturing of precision thickness, large diameter abrasive disk or rectangular sheet abrasive articles